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Seung-Myun Back

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1900 K STREET, NW

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EXAMINER

WILLIAMS, CLAYTON R

ART UNIT

PAPER NUMBER

2457

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/558,430

Applicant(s)

BAEK ET AL.

Examiner

Clayton R. Williams

Art Unit

2457

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-11, 13-15, 18, 21-23 and 26-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, 6-11, 13-15, 18, 21-23 and 26-28 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-4, 6-11, 13-15, 18, 21-23 and 26-28 are pending in this application per amendment.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 6, 7, 11, 13-15, 18, 22, 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Breh et al., US 20040054747 (hereinafter Breh).

For claim 1, Breh discloses a home network management system residing in a home master device connected to at least one home appliance through a first network and connected to at least one client device through a second network separated from the first network, and being controlled by a central processing means of the home master device (Abstract), the system comprising:

a channel handling module for transmitting/receiving a first type of packet between the home master device and the home appliance ([0062], disclosure of device

adapters which translate communication sent between the devices, i.e. appliances, and the pervasive home network appliance, i.e. home master device);

a transmission handling module for performing conversion between the first type of packet from the channel handling module and a first type of message from a service management module, and transmitting the converted packet and message ([0062] and [0061], disclosure of control adapters which translate messages sent between control devices of a user client to a common message protocol understood by the routing engine, which connects the control adapters to the device adapters; in combination; [0063], routing engine serves as intermediary between device adapters and control adapters);

the service management module for performing conversion between the first type of message from the transmission handling module and a second type of message from a connection handling module, and transmitting the converted messages ([0061] and [0062], the control adapters and device adapters, in the aggregate, perform role of conversion of messages into formats appropriate for respective clients and appliances); and

the connection handling module for performing conversion between a second type of extension message from the client device and the second type of message from the service management module ([0061], disclosure of control adapters which exchange messages between client devices and the intermediary).

For claim 2, Breh discloses the system of claim 1, further comprising a system management module controlled by the central processing means, for performing an initialization operation for communication with the client device and/or the home appliance by using necessary variables of the channel handling module, the transmission handling module and the service management module ([0093]-[0094], disclosure of system initializing newly added devices).

For claim 3, Breh discloses the system of claim 2, comprising one message queue which is a transmission path of the whole packets and/or messages, wherein the message queue receives packets and/or messages having types corresponding to reception modules from the arbitrary module of the modules and stores the packets and/or messages, and the modules search the message queue and obtain the packets and/or messages having the types corresponding to each module ([0072] and [0075], disclosure of routing engine of system querying the queues of control and device adapters).

For claim 4, Breh discloses the system of claim 2, comprising a plurality of message queues which are transmission paths of the whole packets and/or messages, wherein the arbitrary module of the modules stores packets and/or messages having message types corresponding to reception modules in the message queues of the reception modules, and the reception modules search their message queues and obtain the

packets and/or messages having the message types ([0072] and [0075], disclosure of routing engine of system querying the queues of control and device adapters).

For claim 6, Breh discloses the system of claim 3 or 4, wherein the message transmitted to the message queue to be transmitted between the service management module and the transmission handling module comprises the message type, an auxiliary factor and a first type of message ([0072], disclosure of message queues for control adapters of system; thereafter, the router sends the message retrieved from control adapter queue to the appropriate device adapters).

For claim 7, Breh discloses the system of claim 6, wherein, when the message comprises a control command from the service management module to the transmission handling module, the auxiliary factor comprises an ID code of the home appliance and a packet type ([0072], disclosure of control adapter encoding into message the address of device adapter slated for receipt of message).

For claim 11, Breh discloses the system of claim 1, wherein the connection handling module provides a message ID code to the received second type of extension message ([0061] and [0072], inherent in disclosure that control adapter formats message into manner having codes distinguishing type of message).

For claim 13, Breh discloses the system of claim 1, wherein the second type of extension message comprises an ID code of the client device, a message code and the second type of message ([0072], disclosure of router reading out address information from control adapter packets).

For claim 14, Breh discloses the system of claim 13, wherein the connection handling module reads the message code and the second type of message from the second type of extension message, and transmits the code and message to the service management module ([0072], disclosure of router reading out address information from control adapter packets).

For claim 15, Breh discloses the system of claim 1, comprising at least one communication control protocol port communicating with the connection handling module for communication with the client device ([Fig. 2; [0060]).

For claim 18, Breh discloses the system of claim 1, wherein the transmission handling module comprises a sending handling module for generating a first type of packet by using the first type of message and an auxiliary factor from the service management module, and sending the packet to the channel handling module ([0061] and [0063]).

For claim 22, Breh discloses the system of claim 1, wherein when the home appliances are identical:

the service management module ends one cycle for one first type of message and transmits the succeeding first type of message to the transmission handling module upon receiving a plurality of first type of messages converted from a plurality of second type of messages; and when the home appliances are different, the service management module consecutively transmits the first type of messages to the transmission handling module ([0066]).

For claim 26, Breh discloses the system of claim 1, further comprising a log file handling module for storing the first type of packet transmitted/received through the channel handling module ([0068], disclosure of routing engine querying information stored in control and device adapters).

For claim 27, Breh discloses the system of claim 1, further comprising a network database handling module for storing a state and information of the home appliance ([0085-86] and [0092-93], disclosure of devices sending event updates to system).

For claim 28, Breh discloses the system of claim 1, further comprising a log file handling module for storing the second type of extension message transmitted/received through the connection handling module ([0068], disclosure of routing engine querying information stored in control and device adapters).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breh, in view of Pathakis et al., US 5,946,467 (hereinafter Pathakis).

For claim 8, Breh discloses the system of claim 7, wherein, when the message comprises a response from the transmission handling module to the service management module, the auxiliary factor comprises an ID code of the home appliance ([0075])

Breh does not explicitly disclose the system's auxiliary factor including "a reception error code".

However, Pathakis discloses a system that transfers packets of information between network nodes, wherein the packets contain a number of flags, including a CRC verification flag (col. 6, lines 33-47). Breh and Pathakis are analogous art because both are from the field of endeavor of exchanging packets of data between nodes on a network.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the home networking system of Breh to include Pathakis' ability to

verify the error-free receipt of packets, because this modification allows for a home network system to know whether packets sent and transmitted throughout the network made it to their destinations without error.

For claim 21, the combination of Breh and Pathakis discloses the system of claim 1 or 18, wherein the transmission handling module comprises a reception handling module for separating an error check field and a first type of message from the first type of packet from the channel handling module, and transmitting the field and message to the service management module (Pathakis, col. 6, lines 33-47).

11. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breh, in view of Pathakis, and further in view of Cunningham et al., US 7,174,386 (hereinafter Cunningham).

For claim 9, Breh discloses the system of claim 6, wherein, when the message comprises a control command from the transmission handling module to the service management module, the auxiliary factor comprises an ID code of the home appliance, a packet type ([0075])

Breh does not explicitly disclose the system's auxiliary factor including "a reception error code and a duplicate reception flag".

However, Pathakis discloses a system that transfers packets of information between network nodes, wherein the packets contain a number of flags, including a

CRC verification flag (col. 6, lines 33-47). Breh and Pathakis are analogous art because both are from the field of endeavor of exchanging packets of data between nodes on a network. The rationale for combination of Breh and Pathakis is provided in rejection to claim 8.

The combination of Breh and Pathakis does not disclose "a duplicate reception flag".

However, Cunningham discloses a networking system that maintains count of the number of retransmissions of packets received (col. 8, lines 4-30). Breh, Pathakis and Cunningham are analogous art because all are from the field of endeavor of exchanging packets of data between nodes on a network.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combination of Breh and Pathakis to include the retransmission counter as taught by Cunningham because this modification allows for a home network system to know whether multiple requests for a system operation have been received.

For claim 10, the combination of Breh, Pathakis and Cunningham discloses the system of claim 9, wherein, when the message comprises a response from the service management module to the transmission handling module, the auxiliary factor comprises an ID code of the home appliance and a packet type (Breh, [0072]).

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breh, in view of Hunnicutt et al., US 5,889,952 (hereinafter Hunnicutt).

For claim 23, Breh fails to explicitly disclose wherein the service management module further comprises a message blocking module for processing the received first type of message.

However, Hunnicutt discloses a networking system that teaches permission based access to network resources (col. 8, lines 26-60). Breh and Hunnicutt are analogous arts from the field of client/server based networked communication between network nodes.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Breh to include the access permissions system as taught by Hunnicutt because this modification allows for a network system which employs restrictions on access to network resources.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive..

Applicant argument I: The prior art of record does not teach the claimed elements of a channel handling module, a transmission handling module, a service management module and a connection handling module.

The Examiner disagrees with Applicant's interpretation of the prior art, Breh. A fair reading of [0061-0063] of the prior art does disclose a system which performs every claimed limitation of the independent claim. While the terms of art used in the instant application are not present in the prior art, the prior art does in fact teach a

system with functionality which allows for home appliances and client devices which are connected to separate networks, respectively, to exchange messages via an intermediary. The intermediary, or pervasive home network appliance as termed in the prior art, performs message conversion between the clients and appliances, so that communications may be exchanged between the entities. Moreover, both Breh and the PGPub of the instant application disclose their functionality may be realized in software, Breh, [0102] and PGPub of instant application, [0137], respectively.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clayton R. Williams whose telephone number is 571-270-3801. The examiner can normally be reached on M-F (8 a.m. - 5 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nov. 13, 2008
CRW

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